APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,625	09/14/2000	Lars Adolfsson	031941-079	8710

			EXAMINER
37825 7590 02/20/2004			KAPADIA, MILAN S
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR C11 PLANO, TX 75024		ART UNIT	PAPER NUMBER
		2144	

DATE MAILED: 02/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application N . 09/661,625		Applicant(s) ADOLFSSON, LARS
Office Action Summary	Examiner Milan S Kapadia		Art Unit 2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 September 2000</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>24-46</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>24-46</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Notice to Applicant

1. This communication is in response to the application filed 14 September 2000. Claims 24-46

are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3. Claims 24-32 and 40-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bryant et al. (5,241,682) in view of Natarjan et al. (5,654,958) and further in view of

Nilakantan et al. (5,541,911).

(A)   As per claim 24 Bryant teaches an arrangement for monitoring and managing routing in a

communications network comprising:

at least one routing domain having at least one routing area that includes a plurality of

network nodes that intercommunicate using transmission links (Bryant; abstract); and

at least one routing controlling device coupled to at least one network node of a routing

area and part of a link state routing process for the routing areas to which the at least one

network node belongs (Bryant; abstract; the Examiner interprets the "border node" as a form of

"routing controlling device")

Bryant fails to expressly teach administrating means for administering the at least one

routing domain using a link state protocol, a link state database maintained by the routing,

controlling device for computing an optimal transmission path between network nodes in the at

least one routing domain, and means for injecting routing information from the at least one

routing controlling device into the link state routing, process, for generating, at each of the

network nodes that are part of the link state routing process, link state databases that are identical

to the link state database maintained by the at least one routing controlling device. However, this

feature is old and well known in the art, as evidenced by Natarjan's teachings with regards to

administrating, means for administering the at least one routing domain using a link state

protocol (Natarjan; abstract), a link state database maintained by the routing, controlling device

for computing an optimal transmission path between network nodes in the at least one routing

domain (Natarjan; abstract; the Examiner interprets the center node to be the controlling device),

, and means for injecting routing information from the at least one routing controlling device into

the link state routing, process, for generating, at each of the network nodes that are part of the

link state routing process, link state databases that are identical to the link state database

maintained by the at least one routing controlling device (Natarjan; abstract). It is respectfully

submitted, that it would have been obvious, to one having ordinary skill in the art at the time the

invention was made, to expand the system taught by Bryant with Natarjan's teaching with

regards to this limitation, with the motivation of reducing link failures by using a well-known

dynamic routing technique (Natarjan; col. 1, line 53-col. 2, line 4).

The combined system of Bryant and Natarjan collectively fail to expressly teach means

for rejecting non-routing information and traffic presented at the at least one routing controlling

device. However, this feature is old and well known in the art, as evidenced by Nilakantan's

teachings with regards to means for rejecting non-routing information and traffic presented at the

at least one routing controlling device (Nilakantan; abstract and col. 4, line 38-col.5, line 14; the

Examiner interprets the central node as the routing control device). It is respectfully submitted,

that it would have been obvious, to one having ordinary skill in the art at the time the invention

was made, to expand the collective system taught by Bryant and Natarjan with Nilakantan's

teaching with regards to this limitation, with the motivation of realizing significant bandwidth

savings (Nilakantan; col. 10, lines 60-65).

(B)   As per claims 25 and 26, Bryant teaches wherein there exists a routing controlling device

for each routing area and wherein the at least one routing controlling device belongs to more than

one routing area (Bryant; abstract).

(C)   As per claim 27, Bryant teaches wherein a routing domain comprises more than one

routing area (Bryant; abstract).

(D)   As per claim 28, the combined system of Bryant and NilaKantan collectively fail to

expressly teach wherein the means for injecting routing information injects link state database

records of a respective link state routing process into the link state processes of all the routing

areas to which the at least one routing control device belongs. However, this feature is old and

well known in the art, as evidenced by Natarjan's teachings with regards to wherein the means

for injecting routing information injects link state database records of a respective link state

routing process into the link state processes of all the routing areas to which the at least one

routing control device belongs (Natarjan; abstract). It is respectfully submitted, that it would

have been obvious, to one having ordinary skill in the art at the time the invention was made, to

expand the collective system taught by Bryant and Nilakantan with Natarjan's teaching with

regards to this limitation, with the motivation of reducing link failures by using a well-known

dynamic routing technique (Natarjan; col. 1, line 53-col. 2, line 4).

(E)   As per claim 29, the combined system of Bryant and Natarjan collectively fail to

expressly teach wherein a routing control device is connected to only one network of the routing

areas to which the routing control device belongs. However, this feature is old and well known

in the art, as evidenced by Nilakantan's teachings with regards to wherein a routing control

device is connected to only one network of the routing areas to which the routing control device

belongs (Nilakantan; abstract and figure 1). It is respectfully submitted, that it would have been

obvious, to one having ordinary skill in the art at the time the invention was made, to expand the

collective system taught by Bryant and Natarjan with Nilakantan's teaching with regards to this

limitation, with the motivation of realizing significant bandwidth savings (Nilakantan; col. 10,

lines 60-65).

(F)   As per claim 30, Bryant teaches wherein the routing control device is connected to more

than one network node of the routing areas to which the routing control device belongs (Bryant;

abstract).

(G)   As per claim 31, the combined system of Bryant and NilaKantan collectively fail to

expressly teach wherein the at least one routing controlling device monitors and manages

updates and changes in the network nodes of the routing areas to which at least on routing

control device belongs. However, this feature is old and well known in the art, as evidenced by

Natarjan's teachings with regards to wherein the at least one routing controlling device monitors

and manages updates and changes in the network nodes of the routing areas to which at least on

routing control device belongs (Natarjan; abstract). It is respectfully submitted, that it would

have been obvious, to one having ordinary skill in the art at the time the invention was made, to

expand the collective system taught by Bryant and Nilakantan with Natarjan's teaching with

regards to this limitation, with the motivation of reducing link failures by using a well-known

dynamic routing technique (Natarjan; col. 1, line 53-col. 2, line 4).

(H)   As per claim 32, Bryant teaches wherein a routing controlling device simulates the

network nodes of the routing areas to which the routing control device belongs when injecting

messages into a routing process when a link change occurs, such that the messages appear to be

issued by a network node for purposes of fulfilling a used protocol and such that the messages

are accepted by the network nodes (Bryant; abstract).

(I)   Claims 40-44 repeat the features of claims 24, 25, 28, 32, and 31, respectively and are

therefore rejected for the same reasons given above for the rejection of claims 24, 25, 28, 31, and

32.

4. Claims 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryant et al.

(5,241,682), Natarjan et al. (5,654,958) and Nilakantan et al. (5,541,911) as applied to claim 24

above and further in view of official notice.

(A)   As per claims 33 and 35-36, the combined system of Bryant, Natarjan and Nilakantan

collectively fail to expressly teach wherein the communications network is the Internet, the link

state protocol is the Open Shortest Path First, and where the administering means is and Internet

Service Provider. However, the Examiner takes Official Notice (see MPEP § 2144.03) that the

Internet, the Open Shortest Path First form of link state protocol and an ISP for administering a

network service in a computer networking environment was well known in the art at the time the

invention was made. The Applicant is entitled to traverse any/all official notice taken in this

action according to MPEP § 2144.03. However, MPEP § 2144.03 further states "See also In re

Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice

must contain adequate information or argument to create on its face a reasonable doubt regarding

the circumstances justifying the judicial notice)." Specifically, In re Boon, 169 USPQ 231, 234

states "as we held in Ahlert, an applicant must be given the opportunity to challenge either the

correctness of the fact asserted or the notoriety or repute of the reference cited in support of the

assertion. We did not mean to imply by this statement that a bald challenge, with nothing more,

would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight.

Thus, it is respectfully submitted, that it would have been obvious, to one having ordinary skill in the art at the time the invention was made, to provide the routing as taught by Bryant, Natarjan and Nilakantan using the Internet, the Open Shortest Path First link state protocol, and ISO as the administering means, , with the motivation of providing the routing service by utilizing and taking advantage of well-known networking technologies and services.

(B)   As per claim 34, Bryant teaches wherein at least one of the network nodes is a router (Bryant; abstract).

5.   Claims 37-39 and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryant et al. (5,241,682), Natarjan et al. (5,654,958), Nilakantan et al. (5,541,911) and official notice ass applied to claims 24 and 33 above and further in view of Iwata (5,687,168.

(A)   As per claims 37-39, the combined system of Bryant, Natarjan, Nilakantan, and official notice collectively fail to expressly teach wherein the link state routing protocol comprises a link state update protocol and a link state acknowledgement protocol for ensuring that all network nodes send Link State Acknowledgments to each other, and that the network nodes employ an algorithm to determine a shortest path through the network for transmitting packets and messages, wherein the at least one routing controlling device transforms network change within a

corresponding area into LSA records by manipulating LSA records in the link state database, the

manipulated LSA records then being flooded throughout the respective routing areas, and

wherein the communications network is an ATM network, the network nodes include switches,

and the link state protocol is a Private Network to Network Interface belongs. However, this

feature is old and well known in the art, as evidenced by Iwata's teachings with regards to

wherein the link state routing protocol comprises a link state update protocol and a link state

acknowledgement protocol for ensuring that all network nodes send Link State

Acknowledgments to each other, and that the network nodes employ an algorithm to determine a

shortest path through the network for transmitting packets and messages (Iwata; abstract),

wherein the at least one routing controlling device transforms network change within a

corresponding area into LSA records by manipulating LSA records in the link state database, the

manipulated LSA records then being flooded throughout the respective routing areas (Iwata;

abstract), wherein the communications network is an ATM network (Iwata; col. 3, line 65-col. 4,

line 4), the network nodes include switches, and the link state protocol is a Private Network to

Network Interface belongs (Iwata; abstract). It is respectfully submitted, that it would have been

obvious, to one having ordinary skill in the art at the time the invention was made, to expand the

collective system taught by Bryant, Nilakantan, Natarjan and official notice with Iwata's

teaching with regards to this limitation, with the motivation of synchronizing the link state

information across the network (Iwata; abstract).

(B)   Method claims 45 and 46 repeat the subject matter of system claims 38, as a series

of steps rather than a set of apparatus elements. As the underlying structure of claim 38 has been

shown to be fully disclosed by the teachings of Bryant, Nilakantan, Natarjan, official notice, and

Iwata in the above rejections of claim 38, it is readily apparent that the system disclosed by

Bryant, Nilakantan, Natarjan, official notice, and Iwata include the steps to perform these

functions. As such, these limitations are rejected for the same reasons given above for system

claim 38, and incorporated herein.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. The cited but not applied art teaches updating link state information network

(5,128,926); a system for extending network resources to remote networks (5,423,002));

management of path routing in packet communications networks (5,987,521); dynamic

algorithms for shortest path tree computation (6,098,107); and a system for generating explicit

routing advertisements to specify a selected path through a connectionless network to a

destination by a specific router (5,881,246).

7.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Milan S Kapadia whose telephone number is 703-305-3887. The examiner

can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Wiley can be reached on 703-308-5221. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-872-9306 for regular

communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-308-1113.

mk

January 9, 2004

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100